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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,285	11/21/2005	Engelbertus Cornelius Vossen	NL 020700	1498
24737 7590 12/19/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER PERRY, ANTHONY T				
ART UNIT		PAPER NUMBER		
2879				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/522,285

**Applicant(s)**

VOSSSEN ET AL.

**Examiner**

ANTHONY T. PERRY

**Art Unit**

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/10/08 has been entered.

Claims 11-12 have been canceled.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 depends from canceled claim 11. For purposes of examination, the examiner has read claim 13 to be dependent from claim 1.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (US 5,801,483) in view of Matsuo et al. (US 5,869,927).

Regarding claim 1, Watanabe discloses a low-pressure mercury vapor discharge lamp comprising a discharge vessel (1), the discharge vessel enclosing, in a gastight manner, a discharge space provided with a filling of mercury and a rare gas (col. 3, lines 10-16), the discharge vessel comprising a luminescent layer (22) and a means for maintaining an electric discharge in the discharge space, a portion of the inner surface of the discharge vessel facing the discharge space being provided with a protective layer (21) adjacent to the luminescent layer (22), characterized in that the protective layer comprises aluminum oxide or yttrium oxide and further comprises a borate and/or a phosphate of an alkaline earth metal and/or of scandium, yttrium, or a further rare earth metal, and wherein the inner side of the protective layer (21) facing the discharge space is provided with the luminescent layer (22) (for example, see Fig. 7 and col. 3, lines 22-63, col. 5, lines 40-55, and col. 6, lines 22-30).

Watanabe does not specifically recite an inner side of the luminescent layer facing the discharge space being provided with an additional protective layer. However, Matsuo et al. teach providing protective layers (4, 5) on both sides of the luminescent layer (3) (for example,

see Fig. 10). Matuso teaches that the additional protective layer (5) is provided on an inner side of the luminescent layer facing the discharge space in order to protect the luminescent layer (3) from being bombarded by mercury atoms in the gas fill (for example, see col. 5, lines 39-60). Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide an additional protective layer to the inner side of the luminescent layer facing the discharge space of the lamp taught by Watanabe, in order to protect the luminescent layer from degradation and to prevent the mercury of the gas fill from being absorbed by the luminescent material.

Regarding claim 2, Watanabe teaches the alkaline earth metal is calcium, strontium, and/or barium (col. 3, lines 22-63).

Regarding claim 3, Watanabe teaches the rare earth metal is lanthanum, cerium, and/or gadolinium (col. 3, lines 22-63).

Regarding claims 4 and 14, Watanabe teaches that the aluminum oxide comprises particles with an effective particle size in the range of .1 to .8 microns (col. 6, lines 27-30).

Regarding claim 5, Watanabe teaches that the protective layer comprises an alkaline earth borate (col. 3, lines 22-63), and in that the thickness of the protective layer is in a range from 0.1 to 50 microns (Table I).

Regarding claim 6, Watanabe teaches that the protective layer comprises  $\text{SrB}_4\text{O}_7$  (col. 3, lines 22-63).

Regarding claim 7, Watanabe teaches the thickness of the protective layer being in a range from 1 to 20 microns (Table I).

Regarding claim 8, Watanabe teaches the discharge vessel comprising at least one stem (5), said stem being provided with the protective layer.

Regarding claim 13, Watanabe discloses a low-pressure mercury vapor discharge lamp as claimed in claim 1, characterized in that the luminescent material comprises a mixture of green-luminescent, terbium-activated cerium- magnesium aluminate, blue-luminescent barium-magnesium aluminate activated by bivalent europium, and red-luminescent yttrium oxide activated by trivalent europium (col. 3, lines 22-63).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe (US 5,801,483) in view of Matsuo et al. (US 5,869,927), as applied to claim 1, above, and further in view of Hendriks et al. (WO 01/56350).

Regarding claim 9, Watanabe in view of Matsuo discloses a low-pressure mercury vapor discharge lamp as claimed in claim 1, but does not specifically teach the discharge vessel being made from a glass comprising silicon dioxide and sodium oxide, wherein the glass composition comprises 60-80 % SiO<sub>2</sub> and 10-20 % Na<sub>2</sub>O. Hendriks teaches a vessel made from silicon dioxide and sodium oxide with the percentages by weight as 60-80 % SiO<sub>2</sub>, 10-20 % Na<sub>2</sub>O (page 2, lines 25-28). Hendricks teaches that the glass is relatively cheap compared to the glass

conventionally used in discharge lamps. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the glass composition taught by Hendricks in order to reduce manufacturing costs.

Regarding claim 10, Hendricks teaches a low-pressure mercury vapor discharge lamp, wherein the glass composition comprises the following constituents: 70-75 %  $\text{SiO}_2$ , 15-18 %  $\text{Na}_2\text{O}$ , 0.25-2 %  $\text{K}_2\text{O}$  by weight (for example, see page 4, lines 2-32). Hendricks teaches that the glass is relatively cheap compared to the glass conventionally used in discharge lamps. Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the glass composition taught by Hendricks in order to reduce manufacturing costs.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### **Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Anthony Perry* whose telephone number is (571) 272-2459. The examiner can normally be reached between the hours of 9:00AM to 5:30PM Monday thru Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel, can be reached on (571) 272-2457. **The fax phone number for this Group is (571) 273-8300.**

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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